UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

24737 7590 06/09/2010

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

BRIARCLIFF MANOR, NY 10510

P.O. BOX 300I

ANDERSON, GUY G

ART UNIT PAPER NUMBER

2883

DATE MAILED: 06/09/2010

EXAMINER

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/573,084 03/23/2006 Marcellinus P.C.M. F		Marcellinus P.C.M. Krijn	GB030164	6994		
TITLE OF INVENTION: BACKLIGHT FOR 3D DISPLAY						

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/09/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further e indicated unless correcte maintenance fee notificat	form should be used I correspondence including d below or directed off ions.	or tran	smitting the ISSU Patent, advance or in Block 1, by (a	TE FEE and PUBLI ders and notification () specifying a new					tould be completed where correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers, Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.					
P.O. BOX 3001	7590 06/05 ELLECTUAL PRO IANOR, NY 10510		RTY & STAN	DARDS	I bar	Cer	tificate	of Mailing or Transı	
									(Depositor's name)
									(Signature)
					L				(Date)
APPLICATION NO.	FILING DATE			FIRST NAMED INVE	YENTOR ATTORNEY DOCKET NO. CONFIRMA			CONFIRMATION NO.	
10/573,084	03/23/2006			Marcellinus P.C.M.	Krijn			GB030164	6994
TITLE OF INVENTION:	BACKLIGHT FOR 31	DISP	LAY						
APPLN. TYPE	SMALL ENTITY	IS	SUE FEE DUE	PUBLICATION FEE	DUE	PREV. PAID ISSUE	S FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO		\$1510	\$300		\$0		\$1810	09/09/2010
EXAM	INER		ART UNIT	CLASS-SUBCLAS	s				
ANDERSO	N, GUY G		2883	349-065000					
"Fee Address" indi PTO/SB/47; Rev 03-0: Number is required. 3. ASSIGNEE NAME AT	ondence address (or Cha 1/122) attached. cation (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. ess an assignee is ident in 37 CFR 3.11. Com	nge of "Indicated, Use	Correspondence ation form e of a Customer	(I) the names of or agents OR, alte (2) the name of a registered attorne 2 registered pater listed, no name w THE PATENT (print	up to ernativ single y or a it attor ill be or typ the pa	e firm (having as a agent) and the name meys or agents. If a printed. see) atent. If an assigna assignment.	memb es of u no nan	er a 2p to be is 3	cument has been filed for
Please check the appropri	ate assignee category or	catego	ories (will not be pr	inted on the patent):	٥	Individual 🗖 Co	orporati	on or other private gro	up entity Government
4a. The following fee(s) are submitted: Issue Fee Publication Fee (No small entity discount permitted) Advance Order - # of Copies				4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) A check is enclosed. Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).					
	SMALL ENTITY state	ıs. See	37 CFR 1.27.					ITTY status. Sec 37 CF	
NOTE: The Issue Fee and interest as shown by the r	I Publication Fee (if req ecords of the United Sta	uired) v ites Pat	will not be accepted ent and Trademark	d from anyone other Office.	than th	he applicant; a regi	stered :	attorney or agent; or th	e assignee or other party in
Authorized Signature						Date			
Typed or printed name						Registration N			
This collection of informa an application. Confident submitting the completed this form and/or suggestic Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C iality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450.	U.S.C. U.S.C. USPT rden, sl O NOT	11. The informatic . 122 and 37 CFR O. Time will vary hould be sent to the SEND FEES OR	on is required to obtai 1.14. This collection depending upon the e Chief Information COMPLETED FORM	in or n is esti indiv Office AS TO	etain a benefit by the imated to take 12 r idual case. Any co r, U.S. Patent and D'THIS ADDRESS	he pub minuter mment Trader i. SEN	tic which is to file (and to complete, including s on the amount of tin ark Office, U.S. Depa D TO: Commissioner f	by the USPTO to process) g gathering, preparing, and ne you require to complete atment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 06/09/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/573,084	03/23/2006	Marcellinus P.C.M. Krijn	GB030164	6994	
24737 75	590 06/09/2010		EXAM	IINER	
PHILIPS INTEL	LECTUAL PROPER	ANDERSON, GUY G			
P.O. BOX 3001		ART UNIT	PAPER NUMBER		
BRIARCLIFF MANOR, NY 10510			2883		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 208 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 208 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)				
10/573,084	KRIJN ET AL.				
Examiner	Art Unit				
Guy G. Anderson	2883				

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to an RCE received 5/24/2010.
- The allowed claim(s) is/are 21,22,24-31 and 33-43.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a)

 All b)

 Some* c)

 None of the:
 - 1. A Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDOMMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) Thereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO/SB/08),
- Paper No./Mail Date 5/24/2010
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date
- 7. Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- Other .

/BRIAN M. HEALY/

PRIMARY EXAMINER ART UNIT: 2883 Application/Control Number: 10/573,084 Page 2

Art Unit: 2883

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.1 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/24/2010 has been entered.

Information Disclosure Statement

2.1 The information disclosure statement (IDS) submitted on 5/24/2010 was filed after the mailing date of the Notice of Allowance on 2/24/2010. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Examiners Amendment

3.1 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

 (Currently Amended) The 3D display device according to claim [23] <u>21</u>, wherein the material is a composite material. Art Unit: 2883

28. (Currently Amended) The 3D display device according to claim [23] <u>21</u>, wherein the material is birefringent.

Allowable Subject Matter

4.1 The following is an examiner's statement of reasons for allowance:

Claims 21-22, 24-31, 33-43 are allowed for the following reason/s:

The instant application is deemed to be directed towards a non-obvious improvement over the invention patented in U.S. Patent No. 6379017 to Nakabayashi or U.S. Patent

No. 5897184 to Eichenlaub, or U.S. Patent No. 6474827 to Shinohara.

4.2 Claim 21 is allowed because the prior art of record, taken alone or in combination, fails to disclose or render obvious a three dimensional display device comprising a backlight, the backlight comprising a planar light guide through which light is guided transversely by internal reflection, wherein regions of the light guide are configured to direct light propagating within the light guide by internal reflection, out of a face of the light guide without passing through the light guide after being directed by the regions so as to form a plurality of line light sources, the regions comprising grooves filled with a material having a higher refractive index than the light guide, wherein the material which fills the grooves is formed as a layer extending across an upper surface of the light guide, the thickness of the layer being less than a period of the grooves.

While Nakabayashi discloses material that is used to fill the grooves, the material is of a lower refractive index than the material comprising the light guides. Further, Nakabayashi is silent with regards to the depth of the groove filling material.

4.3 Claims 22, 24-31, 33-43 depend either directly or indirectly on Claim 21 and are thus also allowed.

- 4.4 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy G. Anderson whose telephone number is 571.272.8045. The examiner can normally be reached on Tuesday-Saturday 1400-2200.
- 4.5 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571.272.2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
- 4.6 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Guy G Anderson/ /BRIAN M. HEALY/

Examiner, Art Unit 2883 PRIMARY EXAMINER

ART UNIT: 2883

Application/Control Number: 10/573,084

Page 5

Art Unit: 2883